



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,134	07/10/2001	Takashi Takayama	C14-134438M/YAH	5793

21254 7590 03/25/2004

MCGINN & GIBB, PLLC  
8321 OLD COURTHOUSE ROAD  
SUITE 200  
VIENNA, VA 22182-3817

EXAMINER

PEREZ, ANGELICA

ART UNIT PAPER NUMBER

2684

DATE MAILED: 03/25/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/901,134

Applicant(s)

TAKAYAMA ET AL.

Examiner

Angelica M. Perez

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 2, 3, 5, 6, 9, 10, 12, 13, 15, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu (Wu et al., US Patent No.: 6,332,007).

Regarding claim 1, Wu teaches of a high-speed roaming method of a wireless LAN (column 1, lines 5-10 and column 3, lines 23-37) comprising a network (figure 1), a plurality of access-points provided in the network (figure 1, items AP1, AP2, AP3, AP4), and a mobile terminal that (figure 1, lines 38-44): is radio-connected to one of the plurality of access points via a communication system (column 1, lines 14-17) using a frequency hopping ( column 1, lines 38-44), where each of the access points registers

previously a predetermined number of access points out of respective neighboring access points as neighboring access points (column 3, lines 30-34), sends out hopping information of the own access point periodically to the network at mutually different timings (column 1, lines 42-57), receives the hopping information of the neighboring access points out of respective access points to construct the own access points as a database (column 5, lines 6-9) synchronize all access points in a same subnet of the network (column 5, lines 9-12) and sends out radio beacons synchronously from the access points (column 1, lines 44-57); and the mobile terminal monitors the radio beacons of a connected access point and downloads hopping information of the neighboring access points from the connected access point (column 9, lines 7-9 and 52-56), monitors radio beacons of the neighboring access points based on the hopping information (column 5, lines 21-33), construct the monitored hopping information as a database to always compare radio environments (column 5, lines 21-33), and select and-connect the access point having a best radio situation by referring the database of said neighboring access points (column 5, lines 21-33) when a quality of the radio beacon of said connected access point is reduced lower than a predetermined value (column 8, lines 49-62).

Regarding claim 2, Wu teaches all the limitations according to claim 1. Wu also teaches where each of the access points sets previously one access point of respective access points connected to the same subnet as a master access point, and sets the access points other than the master access point as slave access points (column 4, lines 44-46 and column 5, lines 6-12), the master access point sends out a

master beacon containing time information to the network at a predetermined time interval (column 4, lines 46-54), and the slave access points are operated in synchronism with the master access point by receiving the master beacon and comparing time information contained in the master beacon with the own time information thereof to correct (column 4, lines 46-54).

Regarding claim 3, Wu teaches all the limitations according to claim 2. In addition Wu teaches where when an operation of the master access point is stopped because of a predetermined reason, another access point connected to the same subnet backups the master access point in place of said master access point (column 4, lines 55-61).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu in view of Balogh (Balogh, Peter; US Publication No.: 0024953 A1).

Regarding claims 4, 7 and 8, Wu teaches all the limitations according to claim 1. In addition, Wu teaches where when the mobile terminal is connected to the access point having a best radio situation (column 4, lines 12-18 and column 5, lines 21-33).

Wu does not specifically teach where the mobile terminal is connected subsequently to the access point having a second best radio situation (column 9, lines 62-67 and column 10, lines 1-9).

In related art dealing with mobility in telecommunication systems, Balogh teaches where the mobile terminal is connected subsequently to the access point having a second best radio situation (column 2, paragraphs 0006 and 0007).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Wu's access point having a best radio situation with Balogh's access point having a second best radio situation in order to compare and find the best access point for communication.

Regarding claims 5 and 9-11, Wu teaches all the limitations according to claims 1, 2 and 3. Also, Wu in view of Balogh teaches all the limitations according to claim 4. In addition, Wu teaches where when the mobile terminal is not connected to all neighboring access points, the mobile terminal is connected to the access point having a good communication situation by scanning all frequency channels (column 6 lines 30-36 and 17-20).

Regarding claims 6 and 12-20, Wu teaches all the limitations according to claims 1, 2, 3 and 5. In addition, Wu in view of Balogh teaches all the limitations according to claims 4 and 7-11. Also, Wu teaches where the mobile terminal is connected to the access point having a best communication situation, by scanning all connectable access points out of the access points provided in the network at a rising time (column 4, lines 12-17; where the "rising time" is effectuated when "booting up").

**Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:


US Publication No.: 0,110,105 deals with wireless LAN where a plurality of access points selects the best communication situation by employing a routing cost system.

Patent No.: 5,991,287 refers to a system and method for providing seamless handover in a wireless computer network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

  
Angelica Perez  
(Examiner)

December 8, 2004

Art Unit 2684

